

2006 U.S. oat crown rust race survey

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Crown rust severities and resulting yield losses were much lower in 2006 throughout much of the U.S. compared to 2005. Widespread drought conditions throughout the central plains limited disease development. A total of 102 and 27 isolates were collected from the spring and winter oat growing regions of the U.S. in 2006, respectively. These isolates represented 76 and 24 races, respectively, for the two regions. The mean virulence in the crown rust population was quite high, with isolates being virulent on over 14 and 15 of the 28 differentials in the spring and winter oat regions, respectively. This is a continuation of a disturbing trend of increasing virulence in the U.S. crown rust population. Virulence was found among the isolates for all the *Pc* genes tested, including *Pc91*, *Pc94*, and *Pc96*. However, the frequency of virulence to these genes, as well as *Pc68*, remains low in the U.S. The only oat genotypes that were crown rust free in the St. Paul buckthorn nursery were Leggett (*Pc68&94*), a selection of *Avena strigosa*, and an accession of *Avena murphyi*.